ABSTRACT OF THE DISCLOSURE

A statement evaluation technique is based on bi-evaluation of programming statements. A programming language statement is evaluated that includes a first and a second sub-statement. The first sub-statement is evaluated and an evaluation success result is determined if evaluation succeeds, or a distinguished value if evaluation fails. The distinguished value is a value that is not included in the range of possible evaluation success results of the first sub-statement. Further, it is determined whether the second sub-statement is to be evaluated. If this is the case, an evaluation success result of the second sub-statement is determined if evaluation succeeds, or the distinguished value if evaluation fails. The range of possible evaluation success results of the second sub-statement does not include the distinguished value. The evaluation result of the statement is determined depending on at least whether evaluation of the first sub-statement succeeds or fails.